

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Docket No.: SCHUNKE-2

In re Application of:)	
)	
KURT SCHUNKE ET AL.)	Examiner: Krause, Justin M.
)	
Appl. No.: 10/693,829)	Group Art Unit: 3682
)	
Filed: October 24, 2003)	Confirmation No.: 1489
)	
For: ELECTROMOTIVE ADJUSTMENT)	
DEVICE)	

BRIEF OF APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

S I R:

This is an appeal from the final rejection of claims 1, 4-14 by the Primary Examiner. The Brief is being filed under the provisions of 37 C.F.R. §41.37. The fee in the amount of \$250.00 to cover the requisite fee set forth in 37 C.F.R. §41.20(b)(2) is being paid by Credit Card.

The Commissioner is hereby authorized to charge fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.

(1) REAL PARTY IN INTEREST

The above-referenced patent application has been assigned to RK ROSE + KRIEGER GMBH & CO. KG VERBINDUNGS- UND POSITIONIERSYSTEME, having a place of business at Potsdamer Strasse 9, 32423 Minden, Germany, the real party in interest by virtue of an assignment recorded on May 17, 2004 at reel 015342, frame 0130.

(2) RELATED APPEALS AND INTERFERENCES

There are no and there have been no related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

(3) STATUS OF CLAIMS

The following claims are in the proceeding:

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,577,034 to Kitamura et al. in view of U.S. Pat. No. 4,631,453 to Drescher et al. and U.S. Pat. No. 5,704,460 to Leimbach and in further in view of U.S. Pat. No. 4,249,281 to Meyer.

Claims 2, 3 are canceled.

Claims 4-8, and 11-14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kitamura et al. in view of Drescher et al.

Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kitamura et al. in view of Drescher et al., and further in view of U.S. Pat. No. 4,844,120 to Myers.

(4) STATUS OF AMENDMENTS

No amendment under 37 C.F.R §1.116 after issuance of the final rejection has been filed.

A communication to make of record the telephonic interview of January 27, 2006 with the Examiner has been filed on April 11, 2006, to confirm withdrawal of the new matter rejection under 35 U.S.C. §132(a) by the Examiner.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The present invention refers to an electromotive adjustment device for adjusting a control element, such as opening and closing a control element of a flap valve (paragraphs [0004] and [0024]). The adjustment device includes a gear mechanism including a plurality of intermeshing gear wheels (Fig. 3) to define a drive train, and a drive motor (17) which is constructed as a brushless motor with an external rotor (17a) and includes an output journal (17b, Figs. 5, 6) in driving relationship with the gear wheel (3) of the gear mechanism. The output journal (17b) may either be an output shaft or part of an output shaft (paragraph [0026]) and in either case has an evoloid gear tooth system with three evoloid teeth (paragraph [0010]) for engagement with the gear wheel (3).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issue 1-Whether claim 1 is patentable under 35 U.S.C. §103(a) over Kitamura et al. in view of Drescher et al. and Leimbach and in further in view of Meyer?

Issue 2-Whether claims 4-8, and 11-14 are patentable under 35 U.S.C. §103(a) over Kitamura et al. in view of Drescher et al.?

Issue 3-Whether claims 9 and 10 are patentable under 35 U.S.C. §103(a) over Kitamura et al. in view of Drescher et al. and further in view of Myers?

(7) ARGUMENT

Issue 1- Whether claim 1 is patentable under 35 U.S.C. §103(a) over Kitamura et al. in view of Drescher et al. and Leimbach and in further in view of Meyer?

As stated under the heading (5), the electromotive adjustment device is constructed to have an intermeshing engagement of a combination between a journal, i.e. shaft, and a gear wheel, whereby the journal has three evoloid teeth. The presence of three teeth only is hereby considered to be most effective (compare (paragraph [0010])).

The Kitamura reference discloses a geared motor having a motor shaft (70) which is connected to intermediate shafts (71, 72) and ultimately to output shaft 64 (sic = 63 in Fig. 6) through intervention of a gear mechanism with meshing helical gear and spur gear configurations between the intermediate shafts.

The Examiner acknowledged in the final rejection of January 20, 2006 that Kitamura fails to disclose the presence of an external rotor and the provision of an output journal with three evoloid teeth. In order to bridge the absence of teaching in Kitamura, the Examiner combined Kitamura with Drescher, Leimbach and Meyer to present a prima facie case for obviousness. This attempt must fail for several reasons.

With respect to Drescher, the Examiner contented on page 4, 3rd paragraph of the final rejection that "*Drescher teaches a brushless motor with an external rotor design (col. 2, line 35)*". While col. 2, line 35 indeed refers to an external rotor, the Examiner ignores the claim limitation in claim 1 relating to the presence of a "brushless motor". Not only does Drescher fail to describe the provision of a brushless motor in the context of the disclosed subject matter, but, in fact, considers the provision of a brushless motor as disadvantageous. Reference is made to col. 1, lines 38 to 43. In addition, Drescher is concerned with a generator device for power supply.

Thus, it is appellant's contention that a person skilled in the art will have no motivation or incentive to combine the Kitamura and Drescher references, as suggested by the Examiner, to create the case of obviousness, and a showing that a skilled artisan, confronted with the problems as appellant, would select the elements from the these prior art references.

With respect to Leimbach, the Examiner contended on page 4, 4th paragraph of the final rejection that "*Leimbach teaches an electric motor (523) having an output shaft with a gear (527) having teeth of an involute profile having preferably a maximum 3 teeth (Col. 7, lines 12-16)*". The Examiner applied Leimbach simply because of the presence of three involute teeth on the spur gear (527) but ignores hereby that claim 1, on appeal, relates to three evoloid teeth and does not relate to involute teeth. Moreover, Leimbach describes the combination between a spur gear and a gear wheel. In other words, a combination of Kitamura and Leimbach would not produce the present invention, involving, i.a., the intermeshing engagement between the output journal and the gear wheel. In fact, combining Kitamura with the Leimbach teaching would at best modify the Kitamura motor by arranging the gear mechanism of Leimbach between the intermediate shafts (71, 72) to substitute the helical gear and the spur gear combination of the gear mechanism. This, however, is not what is set forth in claim 1, which recites the intermeshing engagement between the motor output journal with its three evoloid teeth and the helical spur gear wheel.

Thus, it is appellant's contention that a combination of the Kitamura and Leimbach references, as suggested by the Examiner, would not produce the present invention with respect to the claimed limitation of the motor output journal with three evoloid teeth in engagement with a helical spur gear wheel.

With respect to Meyer, the Examiner contended on page 4, 5th paragraph of the final rejection that "*Meyer teaches the use of evoloid gears (61 and 63)*". The Meyer reference relates to an upright vacuum cleaner. Apart from the fact that a person skilled in the art would not consider a reference, relating to vacuum cleaners, to solve the problems addressed by the present invention by combining

Meyer with Kitamura, it is also appellant's contention that a combination of Kitamura with Leimbach and Meyer would not produce the present invention. As stated above, replacing the three involute teeth in Leimbach with three evoloid teeth according to Meyer would merely modify the Kitamura gear mechanism between the intermediate shafts (71, 72). Moreover, Meyer refers to evoloid teeth of a type disclosed in U.S. Pat. No. 3,247,736 (col. 5, lines 1, 2). U.S. Pat. No. 3,247,736 describes the combination of a pinion and a wheel, whereby the pinion is provided with evoloid teeth. Thus, the construction of a motor output shaft with evoloid teeth is not disclosed therein.

It is therefore appellant's contention that a combination of the Kitamura and Leimbach and Meyer references, as suggested by the Examiner, would not produce the present invention with respect to the claimed limitation of the motor output journal with three evoloid teeth in engagement with a helical spur gear wheel.

In summary, it is noted that the Examiner failed to present a prima facie case of obviousness by combining the Kitamura, Drescher, Leimbach and Meyer references because the Drescher and Meyer references are considered non-analogous art and, even when, for argument's sake, considering the four references in the field of endeavor as the invention, the suggested combination would not produce the present invention because the Kitamura reference could only be modified by replacing the gear mechanism between the intermediate shafts. Modification of the output shaft (70) in Kitamura by constructing it with three evoloid teeth of intermeshing engagement with a spur gear, while theoretically possible, would require the artisan to basically ignore the teachings of Kitamura and, in effect, use the present invention as template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This is an inappropriate standard for obviousness. As noted in ***Ex parte Levengood***, 28 USPQ 2d 1300, 1301-02 (B.P.A.I. 1993) "[t]hat one can reconstruct and/or explain the theoretical mechanism of an invention by means of logic and sound scientific reasoning does not afford the basis for an obviousness

conclusion unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention."

The Examiner has cited four references variously containing some of the limitations in appellant's claim 1. These references and the limitations for which they were cited were combined piecemeal without any suggestion or motivation for their combination and without regard to the purpose of appellant's invention. It is well established that an Examiner cannot pick and choose among individual parts of assorted prior art references "as a mosaic to recreate a facsimile of the claimed invention (see **Akzo N.V. v. United States Int'l Trade Comm'n**, 1 USPQ 2d 1241, 1246 (Fed. Cir. 1986), **cert. denied**, 482 U.S. 909 (1987)). The fact that individual elements of the present invention can be found in the prior art is not determinative as to the question of obviousness. As stated by the Federal Circuit in **In re Rouffet**, 47 USPQ2d, 1453, 1457 "Most, if not all, inventions are combinations and mostly of old element. Therefore, an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be an illogical and inappropriate process by which to determine patentability."

Thus, there must be some motivation to combine the references to create the case of obviousness, and a showing that a skilled artisan, confronted with the problems as the inventor, would select the elements from the cited prior art references.

It is appellant's contention, that the Examiner failed to make a prima facie case of obviousness and failed to explain the motivation one with no knowledge of appellant's invention would have to combine the references in a manner suggested.

It is therefore respectfully submitted that the rejection of claim 1 under 35 U.S.C. 103(a) should be reversed.

Issue 2-Whether claims 4-8, and 11-14 are patentable under 35 U.S.C. §103(a) over Kitamura et al. in view of Drescher et al.?

Claims 4-8, and 11-14 which ultimately depend from claim 1 and therefore contain all the limitations thereof, patentably distinguish over the applied prior art in the same manner as claim 1.

It is therefore respectfully submitted that the rejection of claim 4-8, and 11-14 under 35 U.S.C. 103(a) should be reversed.

Issue 3-Whether claims 9 and 10 are patentable under 35 U.S.C. §103(a) over Kitamura et al. in view of Drescher et al. and further in view of Myers?

Claims 9 and 10 which ultimately depend from claim 1 and therefore contain all the limitations thereof, patentably distinguish over the applied prior art in the same manner as claim 1.

It is therefore respectfully submitted that the rejection of claim 9 and 10 under 35 U.S.C. 103(a) should be reversed.

CONCLUSION

Appellant has invented an electromotive adjustment device which includes a brushless motor with an external rotor and a motor output journal constructed to have three evoloid teeth for engagement with the gear wheel.

The cited prior art does neither teach nor suggest the essential features as defined in claim 1 of the present invention but merely shows some limitations which at some point may disclose an element of the present invention but not the novel and inventive combination. The question of obviousness is, however, not

whether each element existed in the prior art, but whether the prior art made obvious the invention as a whole for which patentability is claimed. (In re Semaker, 702 F.2d 989, 217 U.S.P.Q 1, C.A.F.C. 1983).

When considering the arguments set forth by the Examiner in the final rejection, appellant believes that the Examiner relied on hindsight in reaching his obviousness determination. As the C.A.F.C stated in W.L. Gore, 721 F.2d at 1553, 220 U.S.P.Q. at 312-313) "To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher". Thus, the use of hindsight reconstruction to pick and choose among isolated disclosures in the prior art to reject a claimed invention is ill-advised.

Therefore, the rejection of claim 1 on this prior art is not well taken.

The comments made above are similarly applicable to all of the remaining claims because all of these depend from claim 1 and share all features thereof. It is well settled that a dependent claim which depends on an allowable parent claim shares in the allowability and this is therefore true of the remaining claims in the application.

For the above stated reasons, it is respectfully submitted that the rejection of the claims 1 and 4-14 issued by the Examiner should be reversed.

Respectfully submitted,

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(8) CLAIMS APPENDIX

1. An electromotive adjustment device for adjusting a control element, comprising:
 - a housing;
 - a gear mechanism including a plurality of intermeshing gear wheels to define a drive train; and
 - a drive motor constructed as a brushless motor with an external rotor and including an output journal in driving relationship with the gear mechanism, wherein the output journal has a tooth portion in engagement with a helical spur gear wheel of the gear mechanism wherein the output journal has an evoloid gear tooth system with three teeth.
4. The electromotive adjustment device of claim 1, wherein the gear mechanism has an output member, and further comprising a shaft having opposite ends and linked to the output member, said shaft extending through two openings of the housing in opposite relationship so that the ends of the shaft are selectively connectable with the control element in dependence of a rotation direction of the control element.
5. The electromotive adjustment device of claim 4, wherein the shaft is a hollow shaft.
6. The electromotive adjustment device of claim 1, wherein the gear mechanism has at least two gear stages for reducing a motor speed of the drive motor.
7. The electromotive adjustment device of claim 6, wherein the gear mechanism has two gear wheels to define the gear stages, and further comprising a carrier for supporting the gear wheels

8. The electromotive adjustment device of claim 7, wherein the drive motor is mounted to the carrier.
9. The electromotive adjustment device of claim 1, and further comprising a spring element for moving the control element in one direction.
10. The electromotive adjustment device of claim 9, and further comprising a manually operated shaft for setting the spring element under tension.
11. The electromotive adjustment device of claim 1, wherein the housing has two housing portions threadably connected to one another at a partition plane.
12. The electromotive adjustment device of claim 11, wherein the partition plane extends in a mid-plane of the housing.
13. The electromotive adjustment device of claim 8, wherein the drive motor has an attachment flange in single-piece configuration with the carrier.
14. The electromotive adjustment device of claim 1, wherein the drive motor is selected from the group consisting of synchronous motor and stepper motor, with a revolving field generated electronically.

(9) EVIDENCE APPENDIX

NONE

(10) RELATED PROCEEDINGS APPENDIX

NONE